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Title : CONSERVATION STATUS OF THE CRITICALLY ENDANGERED WESTERN GRAY WHALE POPULATION

Category : Conservation

Student : Not Applicable

Preferred Format : Oral Presentation

Abstract : Research on western gray whales (Eschrichtius robustus) summering off northeastern Sakhalin Island, Russia, has been ongoing since 1995. This collaborative Russia-U.S. study has produced important new information on the conservation status of the western population and provided the basis for the World Conservation Union (IUCN) to list it as "Critically Endangered". To date, 118 individual whales have been photo-identified during 242 boat-based surveys between 1995 and 2002. Estimates of population size and survival rates, derived from mark-recapture analysis of photo-identification data collected on 116 whales between 1997 and 2002, place the population size at less than or equal to 100 individuals and non-calf and calf survival at 0.952 and 0.709, respectively. Ninety-three (78.8%) of the 118 photo-identified whales have been biopsy sampled. Genetic comparisons, based on mitochondrial DNA haplotype frequencies and nuclear DNA markers, indicate that the eastern and western populations are isolated. An overall male-biased sex ratio of 59.1% males (n=55) to 40.9% (n=38) females exists. A minimum of 17 reproductive females and 31 calves has been observed. For the 10 calving intervals recorded, one (10%) is 2 -years, seven (70%) are 3-years and two (20%) are 4-years. A total of 51 whales were observed as ‘skinny’ between 1999 and 2002, with 16 counted in 1999, 30 in 2000, 21 in 2001 and 9 in 2002. The small population size, low calf survival, male-biased sex ratio, genetic isolation from the eastern population and continued occurrence of skinny whales -- in combination with potential impacts from anthropogenic threats and sources of mortality throughout the range of this population -- raise strong concerns about the potential recovery and continued survival of the western gray whale.